REMARKS

Claims 6 - 13 are pending in this application.

The Examiner has rejected claims 6-8 and 10-13 under 35 USC 103(a) over Kumar et al. (US Patent 5,898,001) in view of Jones et al. (Journal of Economic Entomology, (1979), Vol. 72, pages 628-632).

Applicants respectfully traverse this rejection.

The standard test used to establish *prima facie* obviousness is the test set out by the Supreme Court in *Graham v. John Deere* (383 US 1, 148 USPQ 459 (1966)). To determine whether a claim is *prima facie* obvious:

1) the scope and content of the prior art are to be determined;

2) the differences between the prior art and the claims at issue are to be ascertained; and

3) the level of ordinary skill in the pertinent art resolved.

In addition, according to MPEP 2141, citing *Hodosh v. Block Drug Co., Inc.,* 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n. 5 (Fed. Cir. 1986), when applying 35 USC 103, the following tenets of patent law must be adhered to:

1) the claimed invention must be considered as a whole;

2) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; and

3) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention.

Reasonable expectation of success is the standard with which obviousness is determined. *In re Merck & Co., Inc.*, 800 F.2d109, 231 USPQ 375 (Fed. Cir. 1986).

The reason, suggestion or motivation to combine references may be found explicitly or implicitly, While the references need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability must be clear and particular. *Ruiz v. A.B. Chance Co.,* 57 USPQ2d 1161 (Fed. Cir. 2000).

For the reasons explained below it is clear that the invention of claims 6 - 8 and 10 - 13 are not obvious.

The Examiner states that Kumar et al. teach a novel *in vitro* screening method for identifying disease-free plants and refers to the abstract, the text at col. 9, lines 32-35 and claim 26. Applicants respectfully disagree with the Examiner's interpretation of Kumar. Kumar et al. refers to treating the internodal segments (explant) of mint plants to different conditions to remove contaminants consisting of bacteria and fungus, and culturing the internodal segments. Kumar et al. teaches that it is a requirement of the invention that after cutting the internodal segments of the mint plants, contaminants such as fungus, bacteria, microbes etc. are removed from the surface of the internodal segments and then the decontaminated internodal segments are cultured. (See col. 9, lines 40-45; col. 10, lines 64-67; col. 11, lines 23-26; col. 12, lines 39-43; col. 13, lines 23-27). There is no disclosure or suggestion of screening the cultivars to determine whether they are disease-free. The removal of contaminants as is done in Kumar is not a requirement of the invention claimed in this invention.

The Examiner also refers to example 2, col. 4, lines 21-26 and col. 8, Table 1 as disclosing the screening of the plantlets for molecular variation using RAPD.

Applicants respectfully disagree with this analysis. Example 2 and col. 8, Table 1 describe changing the culture medium. Changing the culture medium and determining that some media result in more growth than others can be attributed to factors other than the molecular variation of the different plantlets and can be based on the nutritional requirements of the plantlets. For example, if mice from the same strain are fed different diets, the mice that are fed a diet with more nutrients are apt to grow larger than mice that are fed a diet that lacks all of the required vitamins, amino acids, etc.

There is no disclosure or suggestion in Kumar of identifying insect tolerant genotypes or clones. The Jones et al. citation refers to field screening of full grown soybean plants for pest resistance which is totally different from what is claimed in this application. The Examiner must appreciate that in fields the plants are in adult stage, thus, the behaviour of the plants would be distinct from plantlets or somaclones. The adult plants already have reasonably well developed resistance, so, the outcome of screening of the adult plants in the fields would be distinct from that of plantlets in the tissue culture stage. There is no suggestion in these references that insect resistance can be determined at the plantlet stage as in done in this invention. As stated above, the screening of Kumar is a screening of what explants grow better in a particular culture media. If one where to combine Kumar and Jones one would grow-up mint plants using a particular media and when the plants are grown then test for pest resistance. There is no suggestion in the combination of these references that screening for molecular variation can be done at the somaclone stage. Considering the claimed invention and the references as a whole, the references do not suggest the desirability and thus the obviousness of making the combination. One skilled in the art would not consider the combination of Kumar and Jones to suggest what the applicants have done.

Furthermore, there is no reasonable expectation of success based on these references.

The Applicants have developed a novel and non-obvious *in-vitro* screening method for identifying insect tolerant genotypes / clones in plants. The Applicants have been able to introduce insect tolerance in plants at tissue culture stage itself. At this particular stage, the plantlets are extremely small and tender. The physiology of the plantlets is distinct from the adult plants. The introduction of insect tolerance at this young stage ultimately leads to the development of a strong and insect tolerant plant.

The Applicants have been able to introduce insect-tolerance step at an early stage in the process and thus, have been able to come out with a novel plant which is claimed in Co-Pending US Plant Patent Application No. 09/482,645 for the Plant *per se* "Sambhav" which was allowed on 2nd of September 2003.

In addition, the Applicants have invented a totally non-obvious method that can be used by, *inter alia*, botanists/agriculturists to identify the insect tolerant plants at tissue culture stage itself. This has made it logistically extremely convenient to shortlist the tolerant plantlets and pursue only those short-listed ones. An advantage of the invention, is that agriculturists will not have to take everything to the fields and then start short-listing. Ultimately, it leads to considerable decrease in the amount of time and money spent in identifying the desired plants.

Viewing the references without the benefit of impermissible hindsight, it is clear that the claimed invention is not obvious.

A reference must be considered for what it would teach someone skilled in the art at the time the invention was made and not be applied based on "hindsight". See Panduit Corp. v. Dennison Manufacturing Co. 227 USPQ 337, 343 (Fed. Cir. 1985):

> It is impermissible to first ascertain factually what applicants did and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct appellants' invention from such prior art.

In making its obviousness determination, a court must view the prior art without reading into that art the patent's teachings. Vandenberg v. Dairy Equipment, 224 U.S.P.Q. 195 (Fed. Cir. 1987) citing In re Sponnoble, 160 U.S.P.Q. 237 (CCPA 1969). In Uniroyal . Rudkin-Wiley, 50 U.S.P.Q.2d 1434, 1438 (Fed. Cir. 1988) the CAFC stated:

> The obviousness standard, while easy to expound, is sometimes difficult to apply. It requires the decision maker to return to the time the invention was made. The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time...That which may be clear and thus obvious to a court, with the invention fully diagramed and aided by experts in the field, may have been a breakthrough of substantial dimension when first unveiled [citations omitted]. In this case we are convinced that the district court misapplied the obviousness standard. It has impermissibly used hindsight to reconstruct the claimed invention from prior art with the invention before it and aided by Uniroyal's expert, rather than viewing the invention from the position of a person of ordinary skill at the time it was made. When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself.

As explained above, there is no combination of the cited references which makes the claimed invention obvious.

The claimed invention solves a long felt need in the art; had that not been the case, there should have been at least one citation to show the screening of the plantlets at tissue culture stage.

Therefore, it is respectfully requested that the rejection be withdrawn.

The Examiner has rejected claim 9 under 35 USC 103(a) over Kumar et al. (US plant patent 5,898,001) in view of in view of Jones et al. (Journal of Economic Entomology, (1979), Vol. 72, pages 628-632) further in view of Prajapati et al. (Phytotherapy Research (1998), Vol. 12, pages 270-274.

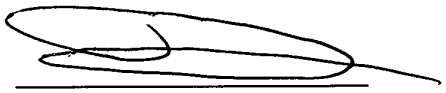
Applicants respectfully traverse this rejection.

Claim 9 is not obvious over Kumar and Jones for the reasons why claims 6-8 and 10-13 are not obvious over Kumar and Jones. Prajapati is wholly irrelevant to the invention of claim 9. Prajapati et al. discloses preparing extracts of the root of the periwinkle to evaluate their antifeedant activity. Testing of various crude extracts and three fractions of the root of *C. roseus* is very different from exposing somaclones to insect larvae or nymphs. Determining whether a particular chemical effects an insect is very different from determining whether a plantlet is tolerant or resistant to an insect. Prajapati teaches whether a chemical has an effect on an insect.In the invention claimed in this application, the effect on the insect is irrelevant to the claimed invention. What is sought in the claimed invention is the identification of insect tolerant genotypes or clones.

Therefore, since the combination of the references does not make the claimed invention obvious, it is respectfully requested that the rejection be withdrawn.

Applicants submit that the present application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted



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